



Reducing Asphalt Plant Emissions Best Practices

BC Clean Air Forum 2007

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Asphalt

- History
- Air Quality Concerns
- Regulatory Requirements
- Problems
- Solutions



History

■ Use

- Babylon; 650 BC
- South America

■ Testing

- Chew Test
- Performance Grade Numbers





Air Quality Concerns

- Particulate
 - Dust
 - PM10
 - Condensible PM
- Volatile Organic Compounds (VOCs)
- Hazardous Air Pollutants
- Odours



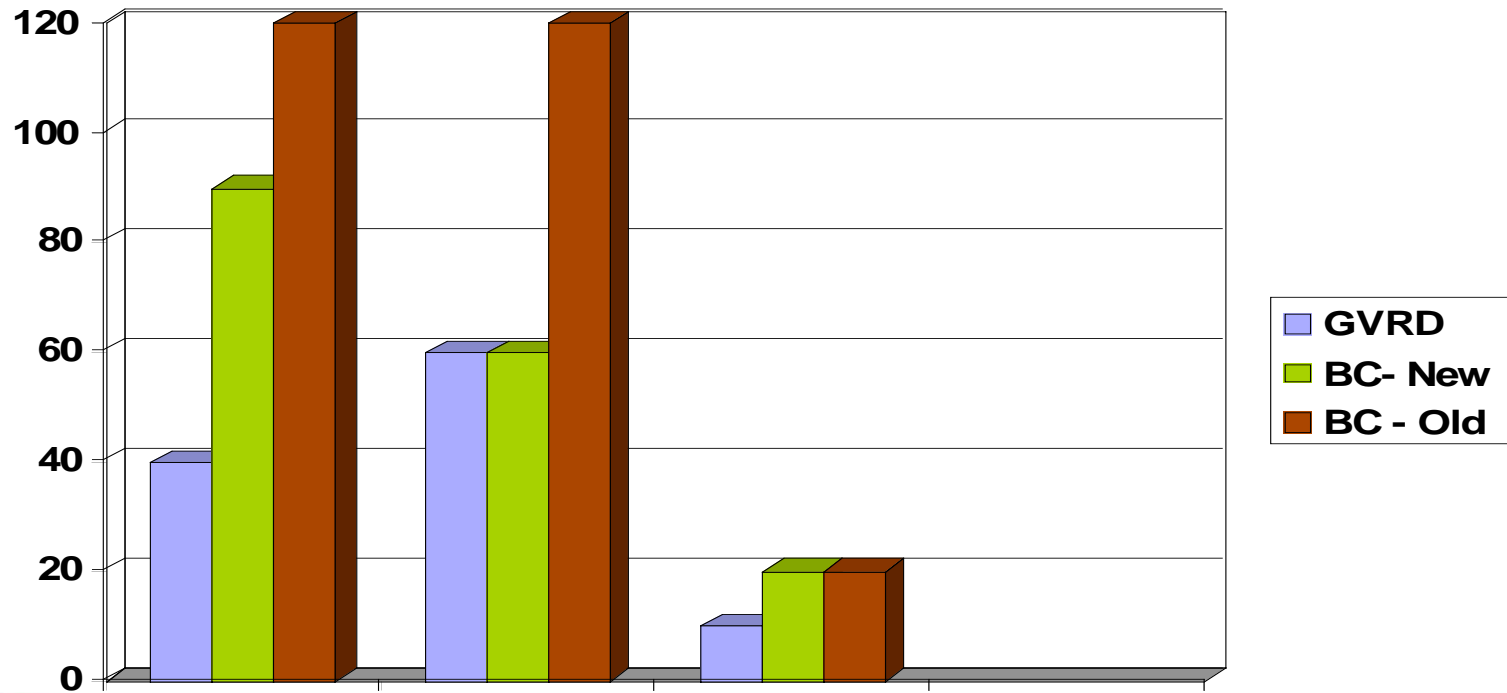


Regulatory Requirements

- Emission Quality
- Works
- Measures
- Monitoring
- Reporting



Emission Quality Requirements



Emission Problems



Some Problem & Causes

Blue Smoke	<ul style="list-style-type: none">■ Bitumen properties
	<ul style="list-style-type: none">■ Bitumen temperature
	<ul style="list-style-type: none">■ RAP
Particulate Emissions	<ul style="list-style-type: none">■ Bag house failure
	<ul style="list-style-type: none">■ Fugitive emissions
Odour	<ul style="list-style-type: none">■ Same as for blue smoke■ Cutback asphalt


Blue Smoke





Particulate





Modifications – Blue Smoke

- Collection system from conveyors & silos (caution on cutback asphalt)
- Drum flight modifications
- Bitumen & RAP injection points away from flame
- Parallel flow add pug mill
- Temperature Controls
- Bitumen specifications
- Moisture content in RAP





Modifications – Particulate

Point Source (Baghouse)

- bag selection
- bag cleaning method,
- seals
- bag inspection
- upstream cyclone

Fugitive Dust

- water sprays (especially on traffic areas)
- three-sided fine aggregate storage barriers



Retrofit

Cutback Asphalt

Questions ???

**Blue Smoke Collection System Explosion
Comparable Emissions with new plant**



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